AMENDMENTS TO THE CLAIMS

1. (currently amended) A communication receiver comprising:

a data receiver receiving at least one pulse-position modulated signal;

a clock circuit separating a reference clock signal into a plurality of coordinating clock signals;

a plurality of time integrators gated to generate a plurality of time-integrated signals in response to said at least one pulse-position modulated signal and said plurality of coordinating clock signals; [[and]]

a combiner forming a demodulated signal from said plurality of time-integrated signals;

a first transimpedance amplifier converting said reference clock signal from being in the form of a current signal into a first voltage swing signal; and

a second transimpedance amplifier converting said at least one pulse-position modulated signal from being in the form of a current signal into a second voltage swing signal;

wherein said combiner sums at least a portion of said plurality of time-integrated signals to form said demodulated signal.

2. (original) A communication receiver as in claim 1 wherein said data receiver comprises at least one electrical transducer.

3. (original) A communication receiver as in claim 2 wherein said at least one electrical transducer comprises at least one photodiode.

4. (canceled).

5. (canceled).

6. (original) A communication receiver as in claim 1 further comprising a clock receiver receiving said reference clock signal.

7. (original) A communication receiver as in claim 6 wherein said clock receiver comprises at least one electrical transducer.

8. (original) A communication receiver as in claim 7 wherein said at least one electrical transducer comprises at least one photodiode.

9. (original) A communication receiver as in claim 1 further comprising a clock recovery circuit recovering said reference clock signal.

10. (original) A communication receiver as in claim 9 wherein said clock recovery circuit comprises a phase lock loop.

11. (original) A communication receiver as in claim 1 further comprising a one-shot timer circuit widening pulses within said reference clock signal.

12. (original) A communication receiver as in claim 1 further comprising a one-shot timer circuit widening pulses within said at least one pulse-position modulated signal.

13. (original) A communication receiver as in claim 1 further comprising a plurality of switches coupled to said plurality of time integrators, said combiner forming said demodulated signal in response to state of said plurality of switches.

14. (canceled).

15. (original) A communication receiver as in claim 1 wherein said plurality of time integrators are gated to begin integration in response to the plurality of coordinating clock signals.

16. (original) A communication receiver as in claim 1 wherein said plurality of time integrators are gated to cease integration in response to said at least one pulse-position modulated signal.

17. (original) A communication receiver as in claim 1 wherein said plurality of time integrators integrate a constant input value in response to said at least one pulse-position modulated signal and said plurality of coordinating clock signals.

18. (original) A communication receiver as in claim 17 wherein said plurality of time integrators comprise at least one current source providing said constant value.

19. (original) A communication receiver as in claim 1 wherein said plurality of time integrators comprise:

at least one integration switch;

at least one hold switch; and

at least one reset switch.

20. (original) A communication system as in claim 19 wherein said plurality of time integrators perform integration in response to said at least one integration switch.

21. (original) A communication system as in claim 19 wherein said plurality of time integrators hold a voltage value in response to said at least one hold switch.

22. (original) A communication system as in claim 19 wherein said plurality of time integrators reset a voltage value to a nominal value in response to said at least one reset switch.

23. (currently amended) A communication system comprising:

a transmitter generating at least one pulse-position modulated signal; and

a communication receiver comprising;

a data receiver receiving said at least one pulse-position modulated signal;

a clock circuit separating a reference clock signal into a plurality of coordinating clock signals;

a plurality of time integrators gated to generate a plurality of time-integrated signals in response to said at least one pulse-position modulated signal and said plurality of coordinating clock signals; [[and]]

a combiner forming a demodulated signal from said plurality of time-integrated signals;

a first transimpedance amplifier converting said reference clock signal from being in the form of a current signal into a first voltage swing signal; and

a second transimpedance amplifier converting said at least one pulse-position modulated signal from being in the form of a current signal into a second voltage swing signal;

wherein said combiner sums at least a portion of said plurality of time-integrated signals to form said demodulated signal.

24. (original) A communication receiver as in claim 23 further comprising a clock recovery circuit recovering said reference clock signal.

25. (original) A communication receiver as in claim 23 further comprising a one-shot timer circuit widening pulses within said reference clock signal.

26. (currently amended) A communication system comprising:

a first station having a transmitter generating at least one pulse-position modulated signal; and

a second station having a communication receiver comprising;

a data receiver receiving said at least one pulse-position modulated signal;

a clock circuit separating a reference clock signal into a plurality of coordinating clock signals;

a plurality of time integrators gated to generate a plurality of time-integrated signals in response to said at least one pulse-position modulated signal and said plurality of coordinating clock signals; [[and]]

a combiner forming a demodulated signal from said plurality of time-integrated signals;

a first transimpedance amplifier converting said reference clock signal from being in the form of a current signal into a first voltage swing signal; and

a second transimpedance amplifier converting said at least one pulse-position modulated signal from being in the form of a current signal into second a voltage swing signal;

wherein said combiner sums at least a portion of said plurality of time-integrated signals to form said demodulated signal.

27. (currently amended) A method of extracting information from pulse-position modulated signals comprising:

receiving at least one reference clock signal;

recovering said reference clock signal from said at least one pulse-position modulated signal;

receiving at least one pulse-position modulated signal;

separating a reference clock signal into a plurality of clock signals;

converting said reference clock signal from a current signal into a first voltage swing signal;

converting said at least one pulse-width modulation signal from a current signal into a second voltage swing signal;

gating a plurality of time integrators to generate a plurality of time-integrated signals in response to said at least one pulse-position modulated signal and said plurality of clock signals; and

generating a demodulated signal from said plurality of time-integrated signals.

28. (canceled).

29. (canceled).

30. (canceled).

31. (canceled).

32. (original) A method as in claim 27 further comprising widening pulses within said reference clock signal.

33. (original) A method as in claim 27 further comprising widening pulses within said at least one pulse-position modulated signal.

34. (original) A method as in claim 27 wherein separating said reference clock signal into a plurality of clock signals comprises generating said plurality of clock signals out-of-phase from each other.

35. (original) A method as in claim 27 wherein gating said plurality of time integrators comprises beginning integration in response to the plurality of coordinating clock signals.

36. (original) A method as in claim 27 wherein gating said plurality of time integrators comprises ceasing integration in response to said at least one pulse-position modulated signal.

37. (original) A method as in claim 27 wherein gating said plurality of time integrators comprises integrating a constant current in response to said at least one pulse-position modulated signal and said plurality of coordinating clock signals.

38. (currently amended) A method of demodulating communication signals comprising:

receiving at least one pulse-position modulated signal and at least one reference clock signal, converting said at least one reference clock signal and said pulse-position modulated signal into voltage swing type signals;

separating [[a]] said reference clock signal into a plurality of coordinating clock signals;

widening pulses within said reference clock signal;

gating a plurality of time integrators to generate a plurality of time-integrated signals comprising;

beginning integration in response to the plurality of coordinating clock signals; integrating a constant value; and

ceasing integration in response to said at least one pulse-position modulated signal; and

generating a demodulated signal from said plurality of time-integrated signals.

39. (original) A method as in claim 38 further comprising recovering said reference clock signal.

40. (canceled).